



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,939	04/05/2004	Fred Buchali	Q80563	3035

72875 7590 10/02/2009
SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

TRAN, DZUNG D

ART UNIT	PAPER NUMBER
----------	--------------

2613

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

10/02/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@sughrue.com
kghyndman@sughrue.com
USPatDocketing@sughrue.com

Office Action Summary	Application No. 10/816,939	Applicant(s) BUCHALI, FRED	
	Examiner Dzung D. Tran	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen et al. US Publication no. 2002/0039211 in view of LaGasse et al. US Publication no. 2003/0020985.

Regarding claim 1, Shen discloses in Figures 4A, 4B, 6A, a receiver device for optical data signals, in particular optical data signal in the Gb/s range, comprising:

an opto-electrical conversion unit 220 of Figure 4B, which converts an optical signal, that is received from a source external to said receiver device, to a converted electric data signal, that is received from a source external to said receiver device, to a converted electrical data signal;

a frequency multiplier unit (inside of synchronizer 736) which frequency-multiplies the converted electrical data signal wherein phase locked loop in frequency multiplier ensure that the data clock is phase locked to the symbol clock (paragraph 0161); and

Art Unit: 2613

wherein the frequency multiplier unit performs a frequency multiplication by a factor of n , with n being a natural number larger than 2 (i.e., paragraph 0161 discloses $n = 8$);

wherein the receiver device comprises a frequency filter 722 for the spectral power of the electrical data signal, and wherein the frequency filter transmits around B/n , wherein B is the bit rate of the electrical data signal and

wherein said frequency multiplication is an analog signal processing technique (Figure 6A).

Shen does not specifically disclose wherein the frequency multiplied signal is use to drive the phase locked loop circuit. Veillard discloses in Figures 1 and 4 a receiving apparatus comprises a frequency multiplier unit 21 that output a frequency multiplied signal is use to drive the phase locked loop circuit. At the time of the invention was made, it would have been obvious to an artisan to include the circuit of Figures 1 and 4 of Veillard in frequency multiplier of Shen' apparatus that is multiply the data signal frequency and use frequency multiplied signal to drive the phase locked loop circuit . One of ordinary skill in the art would have been motivated to do that in order to generate a clock signal that is synchronized to the high speed data signal.

Regarding claim 3, Shen discloses wherein $n = 8$ (paragraph 0161).

Regarding claim 4, Shen discloses the optical data signal are 10 Gb/s (paragraph 0059).

Regarding claim 5, Shen discloses the clock recovery unit comprises a phase locked loop circuit (paragraph 0161).

Regarding claim 7, Shen discloses the data transmission system comprises an optical transmission link 120 of Figure 4B, wherein transmission link has a significant dispersion (it is inherently that dispersion occurs in the optical fiber link wherein the amount of dispersion is proportional to the length of the fiber).

Response to Arguments

3. Applicant's arguments with respect to claims 1 and 3-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vanderpuye Kenneth, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2613

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dzung Tran
09/28/2009

/Dzung D Tran/

Primary Examiner, Art Unit 2613